

**Figure S1** Correlation of  $I_a$  and PC1 weight values of the 5,000 AIMs. The PC1 weight values of the AIM markers were calculated using the "snpweightoutname" function implemented in the EIGENSOFT package <sup>16</sup>(http://genepath.med.harvard.edu/~reich/Software.htm).  $I_a$  of each of the 5,000 SNPs is highly correlated with its eigenvector weight of PC1 (r=0.947). The horizontal axis represents Log( $I_a$ ); The vertical axis represents Log( $I_a$ ).